## PCT09

DATE: 10/11/2001

TIME: 09:54:28

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     3 <110> APPLICANT: Hoechst Marion Roussel
      5 <120> TITLE OF INVENTION: Novel monomer protein with bone morphogenetic activity
              and medicinal agent containing the same for preventing
              and treating diseases of cartilage and bone.
      9 <130> FILE REFERENCE: JH98K008 PCT SEQUENCES IN ENGLISH
C--> 11 <140> CURRENT APPLICATION NUMBER: US/09/701,121
C--> 12 <141> CURRENT FILING DATE: 2000-11-20
     14 <150> PRIOR APPLICATION NUMBER: 10-141379
     15 <151> PRIOR FILING DATE: 1998-05-22
     17 <160> NUMBER OF SEQ ID NOS: 4
    19 <170> SOFTWARE: PatentIn Ver. 2.1
     21 <210> SEQ ID NO: 1
     22 <211> LENGTH: 357
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     23 <212> TYPE: DNA
     24 <213> ORGANISM: HUMAN
     26 <220> FEATURE:
     27 <221> NAME/KEY: CDS
    28 <222> LOCATION: (1)..(357) €
    29 <223> OTHER INFORMATION: Relevant amino acid residues in SEQ ID NO 1 from 1
             to 82 and from 84 to 119 in WO 95/04819.
             Note : aminoacid residue 83 is alanine f_i
             instead of cysteine.
     32
     34 <300> PUBLICATION INFORMATION:
     35 <301> AUTHORS: HOTTEN, Gertrud
             NEIDHARDT, Helge
     37
             PAULISTA, Michael
    38 <302> TITLE: New growth/differentiation factor of the tgf-beta
             familie.
     40 <310> PATENT DOC NO: WO 95/04819
                                               08
    41 <311> PATENT FILING DATE: 1995-02-16
    43 <400> SEQUENCE: 1
     44 cca cta gca act cgt cag ggc aag cga ccc agc aag aac ctt aag gct
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    45 Pro Leu Ala Thr Arg Gln Gly Lys Arg Pro Ser Lys Asn Leu Lys Ala
    48 cgc tgc agt cgg aag gca ctg cat gtc aac ttc aag gac atg ggc tgg
    49 Arg Cys Ser Arg Lys Ala Leu His Val Asn Phe Lys Asp Met Gly Trp
                                        25
    52 gac gac tgg atc atc gca ccc ctt gag tac gag gct ttc cac tgc gag
                                                                          144
     53 Asp Asp Trp Ile Ile Ala Pro Leu Glu Tyr Glu Ala Phe His Cys Glu
                35
                                     40
                                                                          192
    56 ggg ctg tgc gag ttc cca ttg cgc tcc cac ctg gag ccc acg aat cat
    57 Gly Leu Cys Glu Phe Pro Leu Arg Ser His Leu Glu Pro Thr Asn His
                                55
                                                                          240
    60 gca gtc atc cag acc ctg atg aac tcc atg gac ccc gag tcc aca cca
    61 Ala Val Ile Gln Thr Leu Met Asn Ser Met Asp Pro Glu Ser Thr Pro
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    62 65
                                                                          288
    64 ccc acc qcc tqt qtq ccc acq cqa ctq agt ccc atc agc atc ctc ttc
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RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/701,121

Input Set : A:\JH98K008.APP.txt

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TIME: 09:54:28 PATENT APPLICATION: US/09/701,121 Input Set : A:\JH98K008.APP.txt Output Set: N:\CRF3\10112001\I701121.raw 65 Pro Thr Ala Cys Val Pro Thr Arg Leu Ser Pro Ile Ser Ile Leu Phe 85 66 68 att gac tot goo aac aac gtg gtg tat aag cag tat gag gac atg gtc 336 69 Ile Asp Ser Ala Asn Asn Val Val Tyr Lys Gln Tyr Glu Asp Met Val 105 100 357 72 gtg gag tcg tgt ggc tgt agg 73 Val Glu Ser Cys Gly Cys Arg 115 77 <210> SEQ ID NO: 2 78 <211> LENGTH: 119 79 <212> TYPE: PRT 80 <213> ORGANISM: HUMAN 82 <400> SEQUENCE: 2 83 Pro Leu Ala Thr Arg Gln Gly Lys Arg Pro Ser Lys Asn Leu Lys Ala 84 1 5 10 86 Arg Cys Ser Arg Lys Ala Leu His Val Asn Phe Lys Asp Met Gly Trp 20 89 Asp Asp Trp Ile Ile Ala Pro Leu Glu Tyr Glu Ala Phe His Cys Glu 92 Gly Leu Cys Glu Phe Pro Leu Arg Ser His Leu Glu Pro Thr Asn His 95 Ala Val Ile Gln Thr Leu Met Asn Ser Met Asp Pro Glu Ser Thr Pro 75 70 98 Pro Thr Ala Cys Val Pro Thr Arg Leu Ser Pro Ile Ser Ile Leu Phe 85 101 Ile Asp Ser Ala Asn Asn Val Val Tyr Lys Gln Tyr Glu Asp Met Val 105 100 104 Val Glu Ser Cys Gly Cys Arg 105 115 108 <210> SEQ ID NO: 3 109 <211> LENGTH: 39 110 <212> TYPE: DNA 111 <213> ORGANISM: HUMAN 113 <220> FEATURE: 114 <221> NAME/KEY: misc\_feature 115 <222> LOCATION: (1)..(39) 116 <223> OTHER INFORMATION: Sense PCR primer for mutation introducing. 118 <400> SEQUENCE: 3 39 119 catgocatgg accordagte cacaccacce accgectgt 122 <210> SEQ ID NO: 4 123 <211> LENGTH: 37 124 <212> TYPE: DNA 125 <213> ORGANISM: HUMAN 127 <220> FEATURE: 128 <221> NAME/KEY: misc\_feature 129 <222> LOCATION: Complement((1)..(37)) 130 <223> OTHER INFORMATION: Reverse PCR primer for mutation introducing. 132 <400> SEQUENCE: 4 37 133 cccaagettg catgeetgee ggtegactae ctacage

RAW SEQUENCE LISTING

VERIFICATION SUMMARY

DATE: 10/11/2001

PATENT APPLICATION: US/09/701,121 TIME: 09:54:29

Input Set : A:\JH98K008.APP.txt

Output Set: N:\CRF3\10112001\1701121.raw

 $\hbox{L:} 11 \hbox{ M:} 270 \hbox{ C: Current Application Number differs, Replaced Application Number}$ 

L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date